

# [APPARATUS AND METHODS FOR REDUCING BOREHOLE CURRENT EFFECTS]

## Abstract

A well logging tool includes a conductive mandrel; an antenna array disposed around the conductive mandrel, wherein the antenna array comprises a plurality of antennas disposed on insulating supports and at least one contact spacer, the at least one contact spacer having at least one conductor channel having a contact assembly disposed therein; and a sleeve disposed over the antenna array, wherein the sleeve includes at least one electrode, the at least one electrode and the contact assembly adapted to provide a radially conductive path from an exterior of the well logging tool to the conductive mandrel.